

CoderDojo Athenry

"Above all, be cool"



Every week:

- ✓ Sign in at the door

If you are new:

- ✓ Fill in Registration Form
- ✓ Ask a Mentor how to get started

Make sure you are on the Athenry Parents/Kids Google Group: email coderdojoathenry@gmail.com

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Scratch Beginners

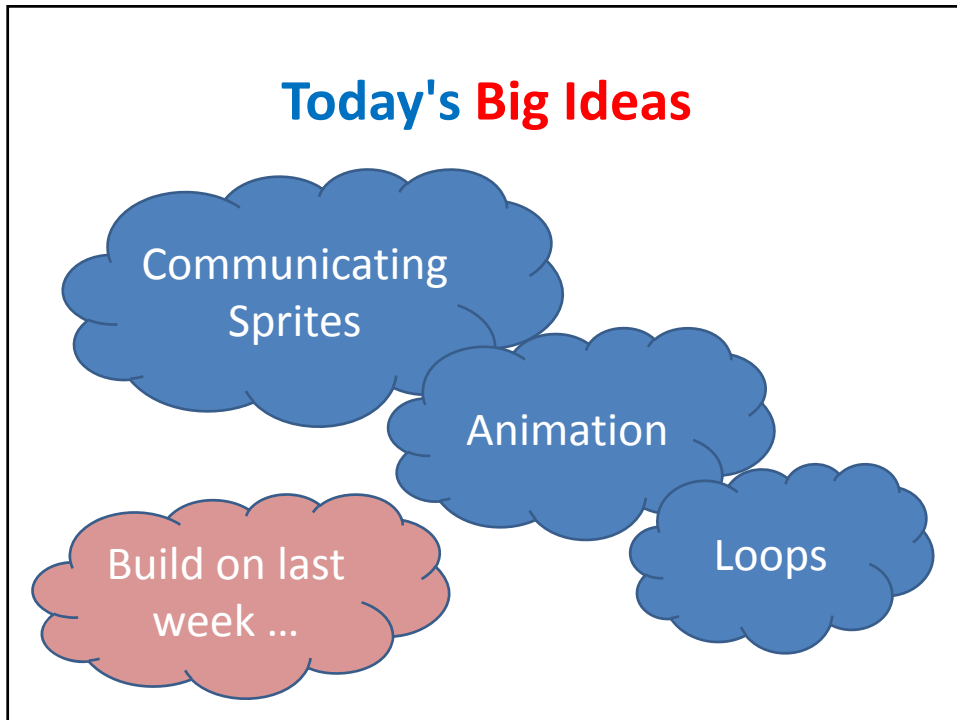


Code and notes by Michael Madden & Declan Fox, 2012

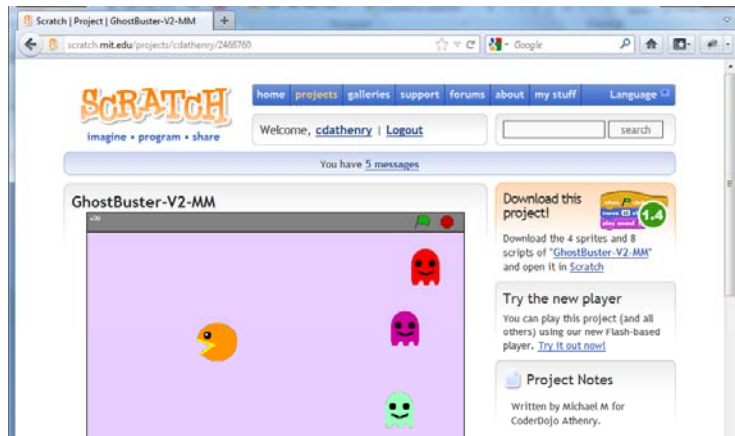
Today's Ninja Challenge: Make **Better GhostBuster** Game



Today's **Big Ideas**



No Game from Last Week? No Problem!



Go to <http://scratch.mit.edu/users/cdatheny>
and download **Ghostbuster-V2-MM**

Steps To Make Your Improved Game

Add an **eyes-shut costume** for each ghost,
Code to make it animate between costumes

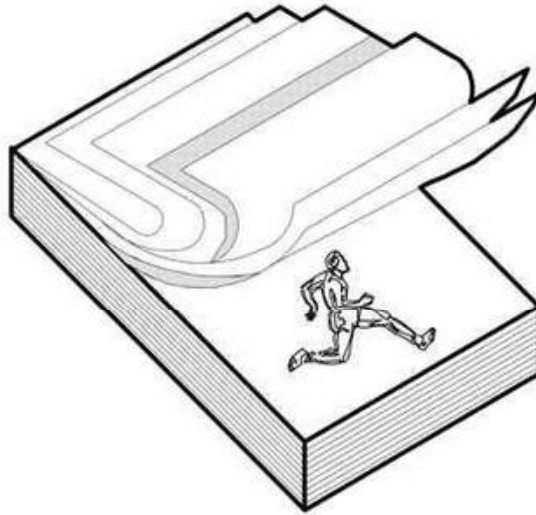
Select a **music track** for the **Stage**,
Add code to make it play forever

Make ghosts **broadcast a message**
when they're eaten

Animate PacMan to **chomp** when it
receives a broadcast that a Ghost is eaten

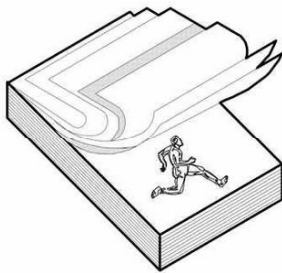
Make PacMan broadcast each new level,
Make the stage change colour for them

How Animation Works



Reminder from a recent week

How Animation Works



Reminder from a recent week

Sprite 1
x: 0 y: 0 direction: 90

Scripts Costumes Sounds

New costume: Paint Import Camera

1		costume1 95x111 3 KB Edit Copy X
2		costume2 95x111 3 KB Edit Copy X

switch to costume costume1

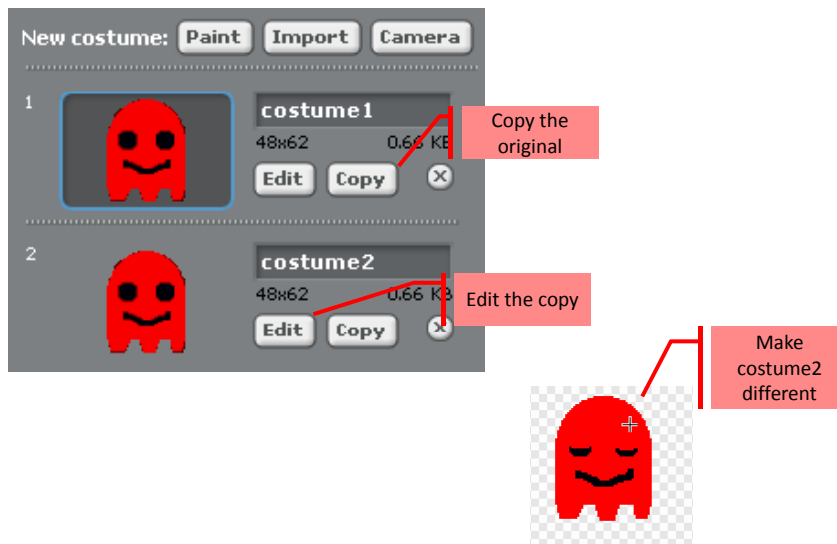
next costume

wait 1 secs

forever

repeat 10

Animate Your Ghosts: Costume



Animate Your Ghosts: Code



A Music Loop

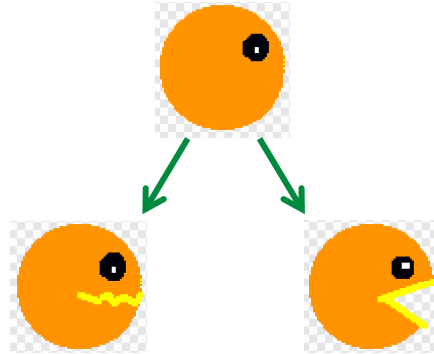
The image shows the Scratch interface for adding a sound. On the left, the 'New sound:' menu has 'Import' highlighted. In the center, the 'Import Sound' dialog box is open, displaying a list of sound files under the 'Music Loops' category, with 'Cave' selected. On the right, a script block is shown: 'when clicked' followed by a 'forever' loop containing a 'play sound Cave until done' block.

Broadcasts: How Sprites Communicate

The diagram illustrates the broadcast process in Scratch. It includes the following elements:

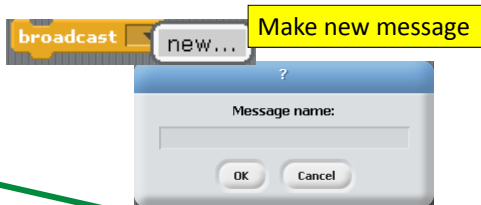
- 1: Make new message**: A 'broadcast new...' block with a 'Message name' dialog box below it.
- 2: A sprite broadcasts it**: A 'broadcast eaten' block.
- 3: Others can react to it**: A 'when I receive eaten' block.
- Note**: A blue sticky note with the text: "All computer languages have ways of exchanging data/messages between different parts of code".
- Diagram**: A Pac-Man sprite is shown broadcasting a message to three ghost sprites.

Making PacMan Chomp: Costumes



TIP: to make sure only difference is mouth, re-draw with no mouth, copy, then add different mouths in each costume.

Making PacMan Chomp: Code



```
when clicked
show
forever if touching color ?
broadcast eaten
change Score by 1
change GhostsCaught by 1
play sound Laser1 until done
hide
wait 3 secs
point in direction pick random 1 to 360
show
```

All ghosts:
Add 1 line

```
when I receive eaten
repeat 3
switch to costume costume2
wait 0.1 secs
switch to costume costume1
wait 0.1 secs
```

PacMan:
Add block of code

Change Background Colour at Each Level

```

when clicked
  switch to costume costume1
  set Score to 0
  set Speed to 2
  set GhostsCaught to 0
  forever if GhostsCaught = 6
    set GhostsCaught to 0
    change Speed by 2
    broadcast new level
  
```

PacMan:
Add 1 line

```

when clicked
  set color effect to 0

when I receive new level
  change color effect by 20
  
```

Stage:
Add 2 blocks of code

At the End ...

Upload your project to the Scratch Website
user: **cdatheny** password: _____

Access it
from home

Improve it

Show your
friends!

